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Abstract

Purpose

Media play a significant role in the process of raising public awareness about Autism Spectrum Disorder (ASD). Despite an increase in ASD media coverage, there is scarcity of research that examines how the actual frame is constructed, and how the news stories are narrated. This study aims to examine: (1) the extent to which Finnish print media articles extend medical and societal narration of ASD to other issue domains, and (2) the extent to which newspaper stories utilize a positive, negative, or neutral narrative.

Design/methodology/approach

We analyzed 210 full newspaper articles from the largest daily appearing newspaper by circulation in Finland from 1990-2016. We used the newspaper's electronic database to conduct a systematic article search. We then utilized coding scheme about news story framing, which was followed by a detailed content analysis of the articles.

Findings

Approximately two thirds of the articles consisted of a straightforward informational or clinical lens to educate the public (n=110). This is in line with international studies. However, our analysis revealed four additional themes of medical and societal ASD reporting.

Social implications

The study increases understanding about how the media can shape the public perception of ASD, which in turn might influence how autistic individuals are accepted in the society, as well as how they feel that they belong.

Originality/value

While ASD itself is at the center of neutral news reporting, our results imply how to construct ASD from new paradigms. Linking ASD to a culture, and thus extending it to the more commonly accepted notion of deafness as a culture, might shape the public's perceptions about ASD.

Keywords: *Autism Spectrum Disorder; media; framing; frame alignment; disability construction; neurodiversity*

Introduction

Autism Spectrum Disorder (ASD)¹ is a recognized condition across the world. According to epidemiological studies, the prevalence of ASD is in the approximate range of 50 to 70 persons per 10,000 (Elsabbagh et al., 2012). On the other hand, some studies suggest that the prevalence is close to 120 per 10,000 persons in regions in the United Kingdom and the United States (Baird et al., 2006; Kogan et al., 2009). In Finland, there are about 55,000 people with some form of ASD, which is about one percent of the population (Finnish Autism and Asperger Association, 2018). The number of individuals diagnosed with ASD has grown over the years across many countries (Centers for Disease control and Prevention [CDC], 2019). Hansen, Schendel, and Parner (2015) suggest that the increase in ASD is due not only to the expansion of diagnostic criteria and better techniques, but also to better reporting and increased awareness. Public awareness is promoted through campaigns such as International Autism Awareness Day and Autistic Pride Day. Another factor that explains part of the increased public awareness—the media—is of interest in the present study.

Media play a significant role in the shaping of an issue's perception (Hall Jamieson & Waldman, 2003). Media depiction shapes public perception of an issue (Edelman, 1988; Hall et al., 2004; Lakoff, 2004), including depictions of autism (Bie & Tang, 2015; Chen et al., 2011; Author, 2018). Policy problems often have a narrative structure, as stories are more easily remembered (Hall et al., 2003). Although media can spread information about ASD, it can also use a negative tone that can stigmatize and create stereotypes associated with individuals with ASD (Draaisma, 2009) and their families. Positive stories, in contrast, tend

¹ Although we acknowledge that there are conflicting views about the use of person-first vs. identity-first language, we use identity-first language when addressing autistic individuals directly, as is preferred by many autistic individuals (Kenny et al., 2016) and the closest we have in terms of empirical evidence on the matter. Since our data come from Finnish newspapers, the use of “autistic individual(s)” [autistinen henkilö] when referring to person(s) is also consistent with the Finnish language, which does not contain prepositions.”

to move from fate and destiny to the realm of discretion and autonomy, and can thus have a positive impact on perceptions of ASD (Jones & Harwood, 2009). Despite an increase in ASD media coverage in various countries (e.g., Author, 2013; Bie & Tang, 2015; Huws & Jones, 2010; Jones & Harwood, 2009; Kang, 2013; Nordahl-Hansen, 2017; Wendorf-Muhamad & Yang, 2017), there is scarcity of research that examines how the stories are narrated.

To fill this research gap, the purpose of this study is to unpack ASD stories in the Finnish print media by examining: (1) To what extent do media stories extend medical and societal narration of autism to other issue domains? (2) To what extent do news stories utilize a positive, negative, or neutral narrative? These subtle nuances may affect the public awareness about ASD, and further policy discussions and choices. Next, we outline our conceptual framework on frame alignment processes and policy stories.

Conceptual Framework

Issues that affect individuals through public policy are generally complex, therefore simplified models are often needed to represent them. We employ a framework that is a synthesis of various aspects of “problem definition”--framing, frame alignment, and policy stories (Author, 2009, p. 37).

Framing

At the core of influencing public opinion is the ability to transform a private experience into a public issue (Stone, 1997). Only when an issue is understood as a social problem as opposed to a private misfortune is government attention and intervention likely to increase. For example, in the U.S., autism was re-framed from a condition arising from a

mother's poor parenting to a disability and public health epidemic (Author, 2013). In recent years, the neurodiversity movement has become more influential in addressing that autism should be seen as a condition rather than a disability or disorder (Kenny et al., 2016).

A problem definition is thus a strategic depiction of the situation rather than some inherent characteristic of the issue (Stone, 1997). Issue frames spell out the essence of a problem and suggest how it should be conceptualized (Nelson & Kinder, 1996). "A frame is a central organizing idea for making sense of an issue or conflict and suggests what the controversy is about and what is at stake" (Edwards, 2003, p. 159). Frames define the core policy problem and imply not only what the problem is about, but also who pays and benefits and who does not.

Political discourse is about a competition of values; hence, frames are, in essence, expressions of some set of preferences. For example, employing autistic individuals could be advocated on the basis of equal access: autistic individuals should have the right to work and be included in society. But the same argument could be made by appealing to values of efficiency: productive, tax-paying citizens lessen the welfare costs to society. Edwards (2003) provides an example using these value appeals in the context of the minimum wage policy. On one hand, advocates of the increase emphasize equity (i.e., those who make the lowest wages should have an acceptable lifestyle). On the other hand, opponents of the issue focus on efficiency (e.g., increased labor costs would put small businesses at a disadvantage and result in termination of the lowest paid workers). Frames, then, emphasize different values in an attempt to depict the issue from a particular point of view.

Frame Alignment

Framing is not adequate in and of itself as a condition for mobilization around an issue (Snow et al., 1986; 2014). Framing must also take into account competing ideas, the

political environment, and the prevailing political culture (Snow et al., 1986; 2014). The first of these processes, *frame bridging*, involves linking two or more ideologically congruent, but structurally unconnected frames and is typically achieved through the use of existing networks by bringing new individuals into the infrastructure of an organization. For example, in mobilizing autism advocacy in the U.S. in the beginning of the 2000s, founders reached out to entertainment industry networks to rally high profile celebrities (e.g., Sylvester Stallone, who is also a parent) for the cause (Author, 2013). *Frame amplification* elevates either values or beliefs. Egnor (2003) and Author (2009) found that negative characteristics of students with disabilities who exhibited challenging behaviors (aggression or violent outbursts) were over-emphasized in special education hearings on school discipline legislation in order to convince policymakers to enact stricter punishments for such students. *Frame extension* refers to a situation in which issue boundaries of a primary framework are pushed to include other, perhaps incidental, issues. Thus, the conflict expands and new interests are drawn in. For example, some advocates have extended the discussion of the causes of autism to the role of healthy living, nutrition, and overall food safety. The final form of frame alignment is *frame transformation* or the planting of new values and reframing of previous beliefs. Transformations of frames are contingent upon the development and adoption of an unjust frame – a condition that was previously tolerable, but now is inexcusable and unjust – and corresponding shifts in assigning responsibility and blame, such as a shift from victim-blaming to system-blaming. Examples include the civil rights movement, the women's movement, and the disability rights movement, all of which adopted an injustice frame and shifted the locus of blame from the individual to systemic structures.

Policy Stories

Policy problems often have a narrative structure, because stories are easily remembered (Edelman, 1988; Hall Jamieson & Waldman, 2003). Stone (1997) proposes that problem definition relies heavily on symbolic devices such as policy stories. A decline story relies on some set of facts to show that conditions have gotten worse. Although the media can spread information about autism, the media can also use a negative tone that may stigmatize and create stereotypes associated with autistic individuals or ASD (Draaisma, 2009). By contrast, stories of hope tend to move from the realm of fate and destiny to discretion and autonomy. These portrayals are often positive and have a positive impact on perceptions of ASD (Jones & Harwood, 2009).

In sum, frames, frame alignment processes and policy stories are essentially different lenses with which to unpack and give meaning to an issue. The media can serve as an agenda setter in introducing or shaping such frames and narratives (McKeever, 2012). Agenda setting refers to a process in which an issue is introduced (or re-introduced with a new or massaged frame), begins to gain attention in the public discourse, and eventually gets on the broader policy agenda at which point something is likely to be done about the matter (Baumgartner & Jones, 1993; Baumgartner et al., 2002; Kingdon, 1995; McKeever, 2012).

The aim of this research is to combine frames, frame alignment processes and policy stories to examine how autism is depicted in news stories, and if any articles suggest that autism is portrayed in ways other than a disability or a neurological condition, to shape the public's perception on ASD.

Methods

Sample

We analyzed full newspaper articles from the largest daily appearing newspaper by circulation in Finland (Finnish Newspapers Association, 2016) from 1990-2016. This period witnessed many milestones in the rehabilitation, education and increasing public awareness about individuals with ASD in Finland (e.g., Ikonen, 1998; Opetushallitus, 2016; Virtanen, 2000). We conducted a systematic search of the newspaper's article coverage, using the newspaper's electronic database (see Author). The search was conducted using the search term "autism" (autismi in Finnish, which also covers ASD). We eliminated irrelevant content such as advertisements and TV guides, and letters to the editor. This gave a total of 210 newspaper articles about ASD.

Data analysis

First, we utilized a previously developed and tested coding scheme about news story framing (Bie & Tang, 2015; Huws & Jones, 2010; Author, 2009; Stone, 1984). Each article was a unit of analysis, which was coded as either 1) educational, 2) civil rights, (3) societal, or (4) medical as illustrated in Table 1 (see Author, 2017). The articles were coded by the first and third author. All articles were cross checked for consistency throughout the coding. We were particularly interested in discovering the articles framed either through a medical or societal lens to answer the guiding research questions.

[Table 1 here]

After employing the coding scheme, it appeared that the educational frame was present in 11% of articles and civil rights frame was used the least (9%). The two largest issue categories were either medical ($n = 123$, 59%) or societal ($n = 45$, 21%) (see identifying reference). Since we were particularly interested in the medically and societally framed stories, we then employed a more detailed analysis of these articles.

We used qualitative procedures to combine analyses of frames, policy stories, and frame alignments. First, two of the authors independently analyzed the data. The newspaper articles were read several times to obtain a general idea of the contents and repeated topics and themes. Thereafter, followed a more thorough coding of the data highlighting, labeling and commenting (e.g., words, sentences, paragraphs) of the document using the capabilities of Word to detect larger themes (Creswell, 2003). Then two researchers utilized a critical content analysis technique (Pickering, 2004) of the merged themes to obtain a thorough understanding and interpretation of the data. The research team discussed the data throughout, and lastly analyzed the positive, neutral or negative portrayals of ASD within each article (see Jones & Harwood, 2009; Stone, 1997; Draaisma, 2009; Author, 2017).

The authors frequently used peer debriefing (Su'o'ng & Nguyen, 2008) to discuss the methods, analysis, and emerged themes throughout the research process. Further, the researchers organized three official data validation meetings, in which they went over the different units of analysis from which the major themes had emerged – the relationship of these themes to the conceptual framework as well as to the positive, neutral, and negative narrations within the themes was discussed. Any disagreements were talked over until the researchers reached consensus.

Findings

Data analysis of the medical and societal articles revealed that approximately two thirds of the news stories consisted of a straightforward informational or clinical lens to educate the public (n=110). This is in line with earlier studies (e.g., Bie & Tang, 2015, Kang, 2013; Huws & Jones, 2010; Jones & Harwood, 2009; Clarke, 2012). However, our analysis revealed four additional themes of medical and societal ASD reporting. These are outlined below.

MMR Controversy: “Foreign Problem”

Articles which covered vaccination studies conducted in Finland, MMR vaccine had not found to have any side effects or have caused ASD. The vaccination controversy is evident in the U.S. and elsewhere (e.g., Author, 2007; Bie & Tang, 2015; Clarke, 2012; Goin-Kochel et al., 2020; Huws & Jones, 2010; Jones & Harwood, 2009; Kang, 2013; Smith et al., 2008) was covered matter-of-factly, with a lens of “this does not apply to us.” Instead, headlines read that controversy existed elsewhere, but that the Finns still vaccinated their children, for example:

The highlights of the vaccine allergy-inducing effect have not affected Finnish parents to leave their children without vaccinations. According to a study completed by the National Public Health Institute, 98 percent of the two-year-olds are vaccinated according to the nationwide vaccination program. (March 20, 1999)

Interestingly, there were no reported signs of “hysteria” either among the Finnish parents:

In Finland, common sense won twenty years ago, and the whooping cough vaccinations were not terminated as they were in Sweden. The British MMR hysteria did not spread to among Finns, and the vaccination coverage is still high. Hopefully the panic reactions triggered by unsubstantiated doubts will not dim our acumen in the future either. (July 24, 2004).

The vaccination coverage thus used a positive (hope) narrative. While references were made to “conspiracy theories” and heated debates elsewhere (e.g., citing foreign press), the articles conveyed a message that such controversies did not happen in Finland and that the Finns could trust their health care providers.

Employment Obstacles

Employment rose as a second distinct theme. Interestingly, while other countries were portrayed in an almost negative light in the vaccination debate (“controversy happens elsewhere but not in Finland”), the employment stories used foreign countries in the opposite way, as an example of how services should be provided:

Microsoft hires autistic people as coders. Why cannot the special expertise of autistic people be utilized in Finland? (August 21, 2015).

Other stories featured the few Finnish companies which provided employment opportunities for individuals with autism. For example:

[Pekka Kinnunen] wears a blue supermarket’s vest. Today he is searching for blue carts. Kinnunen [has] an internship with the local supermarkets. This is what the autistic individuals and their close family members hope, as well as the society more widely. (June 29, 2014).

Requirement for social skills was narrated with the use of negative (decline) policy stories.

For example, such requirement limited access to work:

Individuals with autism are recruited worldwide for tasks that require precision – in Finland, the requirement for social skills harms employment opportunities... These features [social, flexible] are required in more and more jobs...for an autistic person, such a job announcement is an abomination, as communicating and understanding the overall picture create difficulties. (August 21, 2015.)

Extensions to Deviant Behavior

The third theme had a key focus on criminal offenses. A particular discussion with a negative tone took place regarding the school shootings both internationally and in Finland.

For instance:

It has been said Asperger's Syndrome, which is part of autism spectrum disorders, might be under some circumstances, extremely seldomly and with complicated ways - to be one of the reasons behind exceptional violence. (Is Asperger's Syndrome Connected to A School Shootings? February 10, 2013).

Furthermore, another article attempted to frame the shooter as having special needs with implications to ASD:

All the students in the school have a diagnosis, and student records are confidential. Therefore, she [principal] does not want to confirm whether the shooter was enrolled in the special school. About a quarter of the students have mental health problems. Others [in the school] have, for example, musculoskeletal disorders, learning disabilities, or neurological problems such as autism and Asperger's syndrome. (The shooter studied in special school, June 1, 2012).

Further, an article about an incarcerated Finnish young man, who had hacked into the US government system, was linked to ASD. The Finn (Lauri Love) is particularly interesting due to similarities to an international case (Gary McKinnon) (also diagnosed with ASD). The news story framed Lauri as a hacker with ASD like McKinnon (The trial of Lauri Love, a Finnish deceased, begins today: Will he be deported to the United States or not? June 28, 2016). The frame extension of ASD (or another disability) to explain criminal behavior is not unique to Finland. Society attempts to make sense of criminal behavior by assigning blame to an inherent disabling condition.

ASD as Culture

Interestingly, under the fourth theme, the stories situated ASD in the context of culture and neurodiversity. This extension to neurodiversity linked autism, as a condition, to deafness that is perceived as a *culture*, as opposed to a disability. Articles about a theater group established by and for actors with ASD exemplified this move toward autism as a culture. The group's plays also depicted issues that individuals with ASD encounter, such as bullying. A deeper purpose of the group, as evident in the articles, appeared to celebrate neurodiversity through plays, which promoted self-expression of members with ASD:

The initiative ... led to the establishment of the Autism Foundation's theater group called Vautsi ["Wow"]. The purpose of the theater group is to strengthen and empower the group's self-expression, and also to increase the autism awareness in the society. (November 20, 2012).

The noteworthy frame change in the articles embracing neurodiversity as a culture was the move from a medical frame ("vaccination controversy") or fitting-into-society frame ("employment obstacles") to one, in which neurodiversity was reported as a "new normal." For example, in articles about an inclusive art exhibition (joint between artists with and without disabilities), or reviews of a documentary film, ASD's frame was reshaped from the previous medical, educational or societal conceptions to a celebration of neurodiversity with a positive story narration.

Discussion

This study investigated articles about ASD in the largest Finnish newspaper by circulation by examining how stories were framed. The analysis of news articles in the current study revealed that autism can be reported in a variety of ways, which can potentially influence public perception and understanding of autism. Consistent with conceptual literature, frames were extended to a variety of other frames (Snow et al., 1986; Snow et al., 2014; Identifying

reference, 2009). Our results suggest frame extensions to MMR controversy, employment, ASD as neurodiversity, and deviant behavior. Some of the themes also showed evidence of frame amplification for an effect (e.g., the dangers of hackers).

Similar to international studies, our results revealed positive, negative, and neutral narratives (Jones & Harwood, 2009). Although generally speaking the stories about employment of individuals with ASD appeared to use a positive narrative, the specifically Finnish stories about employment had an extension to social skills, which narrated autism with a negative tone. In addition, there appeared to be some stories about criminal behavior that can be stigmatizing toward persons with autism. This appeared to give a particularly negative tone to the news reporting about persons with autism. This type of narration might also elevate values or beliefs among readers and create an image that persons with autism are vulnerable because they have an “illness” that exposes them to mental health issues and higher risks of suicide.

Moreover, while ASD itself is at the center of neutral news reporting, articles can also plant seeds on how to construct ASD from new paradigms. Our perhaps most intriguing finding was in the articles linking ASD to a culture, and thus extending it to the more commonly accepted notion of deafness as a culture (Leigh et al., 2018), might shape the public’s perceptions about ASD. The deaf community has long perceived deafness as a culture within the deaf community as opposed to a disability (Andrews & Harris, 2016). Discussions of whether to call autism a condition as opposed to a disorder alludes to the notion of a culture going outside the borders of a more confined psychiatric category. The work of autism advocates, as exemplified by the newspaper article on the theater group, show how advocates for those with autism affect public perception and awareness. The rise in public awareness of autism has been particularly salient in the last few years with a large

number of highly popular television series and films (Author, 2018). It seems that the findings in the current study on autism framed as part of the culture parallels the trends seen in other media, such as film and television (Author, 2018).

Furthermore, our findings suggest that Finland may be an “outlier” in the research on broader international autism media coverage. Our results showed that some uniquely Finnish cultural norms may even play a role in how newspapers approach autism (Author, 2015; Sahlberg, 2010). For example, some of the stories in our study appeared strategically and perhaps rather cleverly, to utilize “Finnishness” to report on autism, thus amplifying cultural values and norms and extending “autism” and its conventional frames to cultural identity and trust in Finnish culture. Policy studies have shown that education professionals in Finland enjoy high levels of autonomy and public trust to the extent that formal performance evaluations are rare (e.g., Sahlberg, 2010; 2015). Although our study has a rather limited sample, yet the findings regarding vaccination coverage in Finland could imply similar attitudes toward health professionals. Generally, in the analyzed news stories, it seemed that the controversy had not decreased the number of families vaccinating their children in Finland, as compared, for instance, to the numbers in the United Kingdom and the United States (see, e.g., Harris & O’Connor, 2005). Research suggests that societies with low-income inequality and free universal healthcare (e.g., Finland) have higher levels of trust in healthcare professionals (e.g., Elgar, 2010). Perhaps the trust among Finns in their healthcare professionals, the universal health care system, and its free vaccinations have influenced the fact that there is no apparent vaccination debate in Finnish news compared to that in the U.S. media, for instance.

Limitations and Future Research

This study has several limitations that should be carefully taken into account in interpreting the results. The current study investigated only Finland's largest newspaper as measured by circulation numbers and only those articles framed as medical and societal. This particular newspaper and the purposefully selected articles may not represent all major newspapers and ASD stories in Finland. In future studies, it will be important to examine more newspapers, as more material could warrant deeper probing into the data in order to achieve more conclusions. Further studies could also investigate how ASD is reported in local and national newspapers in Finland. For instance, future studies could focus on comparative research between Finland and other countries to investigate further the differences and similarities of reporting news about ASD. This could increase understanding of how media works in different countries, and how media shape public understanding of important issues such as the acceptance or non-acceptance of neurodiverse groups, as well as give indications on how attitudes towards vaccination (e.g., Sivelä et al., 2018) and other health issues are dealt with in the media. Future studies could also concentrate on investigating the links between autism stories and education policy outcomes (e.g., special education legislation in Finland). It would be interesting to examine how discussions in the media about including students with autism in mainstream education have had an impact on educational policy and vice versa.

Our study provides a methodological contribution by the intersecting frames, frames alignment processes, and the nature of policy stories in ASD reporting can be complex. The current study increases our understanding about how the media might shape the public perception and awareness of autism, which in turn could impact on how autistic people are accepted in the society (see also Wolfensberger, 2013), as well as how they feel that they belong, for example (e.g., Author, 2015; 2016). Therefore, we conclude by saying that in

order to understand how to better increase the public's awareness of neurodiverse groups we need to further investigate the role of media in shaping the public perception. Although this study has provided encouraging discoveries, further inquiries into this under-researched area are unquestionably needed.

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Table 1

Coding Scheme

Frame	Definition
Educational	ASD is talked about in relation to education and educational arrangements. For ex., special education, inclusion, applied behavioral analysis, school-based therapy services
Civil rights	Issues relating to civil rights and/or discrimination.
Societal	Membership in society is emphasized, Belonging, achievements, also societal problems (school violence)
Medical	Medical and diagnostic issues are emphasized. New research on causes and treatments, risks, vaccinations, cure